Supplemental Table 4. ICU day 3 plasma proteins that predict COVID19 outcome.

Num	Assay	Uniprot ID	Function
1.	IL12RB1	P42701	One of the two subunits that form the IL-12 receptor (1). Expressed primarily on activated T cells and NK cells, less so on dendritic cells and some B-cells (1, 2). This subunit is also shared with the IL-23 receptor (3).
2.	CLM-1	Q8TDQ1	CMRF35-like molecule 1 also called CD300f, is a receptor for phosphatidylserine presented on the outer membrane of apoptotic cells (4), that promotes macrophage and inhibits DC efferocytosis (5).
3.	CXCL9	Q07325	A chemokine produced by airway epithelial cells in response to infection (6), also induced by IFNγ and in endothelial cells by TNF (7). An agonist for CXCR3 on T cells and natural killer cells (7). Promotes NK, Th1, monocyte, DC, neutrophil, and eosinophil recruitment (6).
4.	FAM3B	P58499	Family with sequence similarity 3, also called pancreatic derived factor (PANDER), is a cytokine-like protein that is highly expressed in pancreatic islets and high serum levels are associated with the progression of metabolic syndrome and type 2 diabetes (8).
5.	OPTC	Q9UBM4	Opticin is an extracellular matrix protein associated with collagen in the vitreous humor where it binds heparan and chondroitin sulfate (9, 10). It is an anti-angiogenic factor in retinas (10).
6.	THY 1	P04216	Thymocyte differentiation antigen 1 is a glycoprotein expressed on the outer surface of many cell types including fibroblasts, T cells and activated endothelial cells and has a soluble form (11). Its function is cell and tissue-dependent, but is pro-fibrotic in pulmonary fibroblasts in pulmonary fibrosis (11).
7.	ICOSLG	O75144	Inducible costimulator ligand is a transmembrane protein expressed by B cells, monocytes, DCs T cells and endothelial cells; TNFα is required for induction (12). It activates the inducible costimulator in the thymus and on activated T cells (12).
8.	IGF1R	P08069	A tyrosine kinase receptor expressed on T and B cells, macrophages, NK cells and granulocytes where its ligands, insulin-like growth factor 1 and 2, causes various effects such as proliferation, cytokine production and priming/ activation (7).
9.	IL10.1	P22301	An important anti-inflammatory cytokine, expressed in virtually all immune cells except plasmacytoid DCs, it works to limit immune responses and prevent host damage (13).

10.	CLMP	Q9H6B4	Coxsackievirus and adenovirus receptor-like membrane protein is a transmembrane glycoprotein involved in homophilic cell-cell adhesion and is expressed in a wide variety of tissues (14).
11.	IL10	P22301	See "IL10.1" above.
12.	CD83	Q01151	Expressed on B and T cells, monocytes, DCs, microglia and neutrophils, and has soluble and membrane-bound forms (15). Membrane-bound CD83 is essential for $CD4^+$ T cell development and inhibiting autoimmunity, soluble CD83 induces regulatory mechanisms for tolerance (15).
13.	ROR1	Q01973	A transmembrane receptor tyrosine kinase that is activated by Wnt family ligands and is mainly thought to be involved in organ/tissue genesis during development (16). Though recent evidence suggests it may be involved in pro-inflammatory p65 activation, at least in cancer (17).
14.	PVRL4	Q96NY8	Poliovirus receptor-related protein 4 also called nectin-4 is a cell-cell adhesion molecule in adherens junctions, overexpressed in several cancers (18).
15.	IL32	P24001	Expressed by PBMCs, epithelial cells and NKs, it up-regulates other pro-inflammatory cytokines and has several isoforms (19). Airway epithelial cell production is increased by viral infections and oxidative stress (6).
16.	CA12	O43570	Carbonic anhydrase 12 is membrane-associated glycoprotein that catalyzes the reversible hydration of carbon dioxide (20). CA12 is up-regulated by hypoxia, at least in tumor environments (21) and CA activity is associated with sleep apnea-related hypoxemia (22).
17.	NCS1	P62166	Neuronal calcium sensor 1 is a cytosolic protein involved in several cellular functions through binding partners and intracellular Ca^{2+} regulation (23). It is highly expressed in neurons, but is not neuron-specific (23).
18.	FLRT2	O43155	Fibronectin leucine rich transmembrane protein 2 was first discovered in a screen for extracellular matrix proteins (24) and participates in homotypic cell-cell adhesion as well as fibroblast growth factor receptor signaling (25).
19.	S100A11	P31949	A cytosolic calcium-binding protein of the S100 family, it is involved in growth arrest in contact inhibition (26). It is expressed in a wide variety of cells and is secreted by an unconventional pathway (26). It is involved in cell-cell contacts and can promote cell migration in response to hypoxia-induced mitogenic factor (27).
20.	TOP2B	Q02880	DNA topoisomerase II beta is expressed in a wide variety of tissues and throughout the cell cycle (28). Mostly found in the cell's nucleus, it is one of the enzymes that catalyzes topological changes in DNA (28).

21.	ANGPTL7	O43827	Angiopoietin-like protein 7 is an orphan ligand, but appears to be involved in hematopoietic stem cell regulation and self-renewal (29). Its serum concentration is higher in obese subjects compared to non-obese controls and can be lowered with exercise (30).

CD – cluster of differentiation

CXCL – CXC ligand

CXCR – CXC receptor

DC – dendritic cell

IFNγ – interferon gamma

IL – interleukin

NK – natural killer cell

PBMC – peripheral blood monocyte cell

STAT – signal transducer and activator of transcription

Th# – type # T helper cell

TNFα – tumor necrosis factor alpha

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